

DOCUMENT RESUME

ED 292 073

CS 009 077

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TITLE Effects of Home Literacy on Children's Recall.
Technical Report No. 420.
INSTITUTION Bolt, Beranek and Newman, Inc., Cambridge, Mass.;
Illinois Univ., Urbana. Center for the Study of
Reading.
SPONS AGENCY National Inst. of Education (ED), Washington, DC.
PUB DATE Feb 88
GRANT NIE-400-81-0030
NOTE 24p.; Portions of this paper were presented at the
Annual Meeting of the American Educational Research
Association (San Francisco, CA, April 16-20,
1986).
PUB TYPE Reports - Research/Technical (143) --
Speeches/Conference Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Family Environment; Kindergarten Children;
*Literacy; *Parent Child Relationship; *Parent
Influence; Primary Education; Reading Aloud to
Others; Recall (Psychology); Users (Information)
IDENTIFIERS Reading Motivation

ABSTRACT

A study assessed the impact of the home literacy environment on kindergartners' recall of topically familiar and unfamiliar information. Subjects, 32 kindergarten students (16 from a public school and 16 in a gifted program in a private school), were selected from a mid-sized, mid-western community. All subjects recalled two of four counter-balanced passages, completed the Slosson Subtest of Verbal Ability, and responded to interview questions which assessed their perceptions of the frequency of home literacy experiences. Subjects' parents also completed surveys which measured the frequency of home literacy experiences. Results indicated that: (1) the amount and quality of home literacy activity affected the recall of prosodic information among kindergartners; (2) children with higher verbal scores were less affected by passage unfamiliarity than were children with lower verbal scores; and (3) regardless of verbal ability, subjects who reported a high frequency of literacy activities in their homes were better able to cope with unfamiliar content than were their peers who reported a lower frequency of home literacy activity. (Four sets of data tables are included, as well as 42 references, a child's survey scale, a children's questionnaire of home reading activities, a parent home literacy survey, and a verbatim transcription of one child's recall.) (JK)

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ED 292073

CENTER FOR THE STUDY OF READING

A READING RESEARCH AND EDUCATION CENTER REPORT

Technical Report No. 420

EFFECTS OF HOME LITERACY ON CHILDREN'S RECALL

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Portions of this paper were presented at the 1986 American Educational Research Association Convention in San Francisco. Research was carried out under NIE Grant No. NIE 400-81-0030.

Abstract

This study assessed the impact of the home literacy environment on kindergartners' recall of topically familiar and unfamiliar information. Subjects recalled two of four counter-balanced passages, completed the Slosson subtest of verbal ability, and responded to interview questions which assessed their perceptions of the frequency of home literacy experiences. Subjects' parents also completed surveys which measured the frequency of home literacy experiences. A mixed between by within subjects analysis of variance was conducted using multiple regression techniques. The analysis suggests that the topic familiarity of the passage does impact significantly upon subjects' ability to recall information. Increased verbal ability significantly reduced the difference between subjects' recall of topically familiar and unfamiliar information. Beyond these ability related effects, which are commonly associated with increased performance on recall tasks, the frequency of home literacy activities accounted for an additional 30% of the variance in recall.

EFFECTS OF HOME LITERACY ON CHILDREN'S RECALL

Early reading and emergent literacy research indicates that preschool children who participate in literacy-related activities at home are likely to be successful readers in school (Clark, 1976; Doake, 1986; Durkin, 1966; Lehr, 1986; McCormick & Mason, 1986; Purcell-Gates, 1986; Teale, 1984, 1986; Wells, 1985). In a review of studies of early readers, Doake (1986, p. 3) concluded that the "outstanding feature which seemed to contribute most to these children's early reading development was that they came from print-oriented homes and had been read to extensively from a very early age." Apparently, "Being read to plays a special role in the literacy development of the young child" (Teale, 1986, p. 18). More specifically, evidence from several correlational studies shows that being read to is correlated with specific elements of language development (Chomsky, 1972), development of story theme (Lehr, 1986; Sulzby, 1985), processing syntactic features of texts (Purcell-Gates, 1986), questioning (Yaden, 1982), and success in beginning reading (Clark, 1976; Durkin, 1966).

Research with kindergarten and primary grade children indicates that the benefits of a rich home literacy environment result in increased reading comprehension in school-aged children. Research by Humphreys and Davies (1983) and Mason and Dunning (1986) suggests that growth in reading comprehension among school-aged children can be measured by children's ability to process and retrieve information and explained in large measure by children's preschool story book listening experiences. Another experimental study (McCormick & Mason, 1986) determined that sending simple-to-read books home for parents to read to their preschool child and help them learn to recite had a significant effect on their later reading in kindergarten and first grade.

Case studies further illuminate the role of early home literacy and book-reading experiences and their development. For example, Wells (1985, 1986), in observing children between the age of one and three years, found that listening to stories was significantly associated with children's knowledge of literacy at age five and their reading comprehension ability at age seven.

In addressing comprehension and recall of text information of older children and adults, Bock and Brewer (1986) focused on factors which enhance or detract from an ability to process and retrieve information. Three of the factors they presented which may help to explain why reading to children at home enhances children's literacy are: the level of background knowledge, the ability to construct mental models, and the ability to implement effective comprehension strategies in order to infer and summarize. First, reading to children can expand children's *background knowledge* about stories, story topics, text structure and language used to convey stories. Second, it may well affect the completeness of *mental models* which children try to construct from the story information presented. Third, it may contribute to the development of effective *comprehension strategies* required to synthesize the information presented and make requisite inferences.

The background knowledge which a reader or listener brings to any new situation has been described by Rumelhart (1980) and Brewer and Nakamura (1984) as being organized into schemata--generic organizational knowledge structures consisting of information which an individual already possesses and can apply to a new situation. It is thought that when an individual encounters a new situation, the ability to access a schema which is appropriate to the situation will aid in processing and recall (Pickert & Anderson, 1977; Anderson & Pickert, 1978). Stein and Trabasso (in press) report that very young children (4-6 years) notice and report events within narrative passages which do not fit with their expectations, based on their prior knowledge of the events surrounding the story events. Thus, young children, as well as adults, are capable of activating an appropriate schema which, in turn, aids recall.

A second source of ability to comprehend and recall is the mental model framed by the reader or listener. Johnson and Laird (1983) describe mental models as the specific representations a person creates from a particular piece of connected text or discourse. Mental models differ from schemata

in that mental models include details and specifics which are particular to a passage and are not predictable from background knowledge; for example:

"Mike came in from recess and went to his seat. His teacher assigned four math sheets to be completed before P.E. She opened the bottom drawer of her desk, removed the worksheets, and asked Mike to pass them out."

While the reader may have a detailed schema for the *particular type* of school he or she attends, that schema would not provide information regarding the number, type or location of the worksheets. These facts would need to be incorporated in the reader's mental model of the particular text in order to facilitate recall. Hence, the ability to construct mental models contributes to recall ability beyond the contribution made by the existence of a strong schema. Research by Markman (1977, 1979) and Paris (1986) suggests that young children often form incomplete mental models, particularly of information which is unfamiliar.

The third characteristic that may affect children's recall ability is the degree to which the child possesses appropriate strategies for synthesizing information and drawing inferences not present in the text. A 1983 review chapter by Brown, Bransford, Ferrara, and Campione reported that young children can be taught how to store important segments of information in memory and recall and process these pieces to make necessary inferences and summarize. However, they do not use these processes without being instructed and have to be coached (reminded) to use the strategies. Research by DeLoache and DeMendoza (1986), Snow and Ninio (1986), and Yaden (1982) indicates that parents who read to their children often take part in "coaching" behavior to get their children to make predictions, inferences, causal links and to tie story information to their own experiences. In short, these parents are leading their children to use effective comprehension strategies.

In summary, then, there is correlational evidence for links between home literacy and children's ability to understand, process and recall text information. Some factors which affect comprehension and are likely enhanced by home literacy experiences are the level of background knowledge, the ability to construct mental models and the ability to implement effective comprehension strategies in order to infer and summarize. The established correlational connections between home literacy and comprehension have not been studied empirically. The following study attempts to do so by measuring young children's listening comprehension ability to recall a familiar and unfamiliar topic in conjunction with an evaluation of the frequency of their home literacy activity. Children's recall of a passage about a familiar topic was compared with their recall of a passage about a less familiar topic. It was hypothesized that recall would not only be influenced by verbal ability and familiarity with the topic, but also by the frequency of home literacy events.

Method

Subjects

The sample consisted of 32 kindergarten students from a mid-sized, mid-western community. Sixteen students (9 boys and 7 girls) were enrolled in a public school kindergarten classroom. The other 16 students (8 boys and 8 girls) were enrolled in a private kindergarten program for bright and gifted students. These two classrooms were selected because their educational programs differed drastically from one another. The public school program was a traditional, highly structured, teacher-directed program. The private school operated on an "open classroom" plan where activities were child-selected and child-directed. This contrast in school experiences provided the opportunity for counter-balancing the principal experimental variable--topic familiarity--because one passage subjects listened to was about a child in a traditional classroom setting and the other described children in an open classroom setting. Because the type of classroom environment provided the basis for familiarity, kindergarten subjects were preferable to older subjects whose exposure to multiple classroom environments might well have confounded "familiarity."

Materials

Four narrative passages written by the researchers were used in the study. Two of the passages had as their setting a traditional classroom. The story lines involved children in situations typically encountered by children in a traditional school setting. One of the stories was about a child who had forgotten his library book and could not check out another one. The other two passages were set in open classrooms and involved children in situations typical of open classrooms. One was about a child who had forgotten to sign up for any activity centers the previous day. Two passages of each type were used in order to test for generalizability of passage effects. Each subject listened to one passage of each type. A Latin square design controlled for passage and order of presentation effects. Because young children's processing of text could be affected by the presence of pronouns, the number of pronoun referents was held constant across passages (19 in each). To control for children's varying ability to meaningfully process and construct mental models of different discourse structures, all four passages were presented in an explicit narrative format with an equal number of complete thought units in each passage (each had 13 sentences and 24-25 thought units). Finally, to control for possible effects of reading ability and prosodic cues from one reading to the next, passages were read by one of the researchers and presented to each subject on tape. Passages were piloted with a convenient sample of nine five- and six-year-olds. For this sample, there were no significant differences in the number of thought units recalled, when comparing stories of like settings; there were, however, significant differences between stories *across* classroom settings, with the advantage given to the passages about familiar classroom settings.

Tests and Measures

The Slosson Subtest of Verbal Ability was selected as a potential covariate. This instrument consists of ten sentences of increasing difficulty which are read to the subjects. After each sentence was read, subjects were told to repeat the sentence just as it was read to them. Standardized scores were computed, based on the number of errors in each sentence. The Slosson was selected as a potential covariate because it was expected that students' performances on this instrument would be highly correlated with the dependent measure, recall of passages (at least .60). However, students' ability to reproduce text *verbatim*, as is the case on the Slosson, was not an issue of interest on the dependent measure.

A 15-item survey of home literacy was administered to each child. Items were drawn from previous work on the influences of home literacy experiences (Durkin, 1966; Mason, 1983 to present; and Meyer & Linn, 1983 to present). The 15 items were read to children individually to measure their awareness of home literacy activities and the type of home literacy activities in which they participate. Questions assessed frequency of parent and child initiated literacy events. Z scores were computed for each response. Correlations between responses were calculated and positively correlated responses (.2 or greater) in each of three theoretically distinct categories were grouped to form three scales (see Footnote 1):

1. Child's perception of frequency of parent-initiated literacy events;
2. Child's perception of frequency of child-initiated events;
3. Child's perception of frequency of library use.

Eleven of the questions asked of children were also asked of the parents. Four questions which investigated children's degree of participation and the roles they took in "play school" activities were included in the children's survey. These questions were dropped from the analyses because they were highly correlated with the sex of the subject but were not correlated with any measure of ability. A sample of the Child Survey is presented in Appendix A.

Parent surveys were sent home with each child and collected the following day. Parents who did not respond to the second survey were contacted and surveyed via phone. Ninety-one percent of the surveys were returned initially and the final 9% were collected by phone. Parents responded to 11 questions regarding their perception of the home literacy environment for their child. As stated previously, parents did not respond to questions about children's "play school" activities. Responses were standardized and positively correlated items were used to construct scales in a manner identical to that used for the child literacy survey.

Responses to the parent survey were grouped into three scales (see Footnote 2):

1. Parents' perception of frequency of child-initiated home literacy experiences;
2. Parents' perception of frequency of parent-initiated home literacy experiences;
3. Parents' perception of the frequency of library use.

A sample of the parent survey is presented in Appendix B.

A major threat to the validity of self-reporting instruments such as surveys is one of "social desirability of responses." That is, how accurate are the results obtained and how does one deal with, in this instance, parents' tendency to report what seems "best," rather than what really takes place? To control for this potential bias, *both* parents and children's responses were used in the analyses. An examination of the correlations presented in Table 1 confirms the concern that children's responses may differ from those of their parents. While in all but one instance parents' responses are positively correlated with those of their children, the existence of less than perfect correlations indicates that they *do* differ. Possible explanations for some of these differences are presented in the discussion section.

[Insert Table 1 about here.]

Procedure

One of the researchers tested all 32 subjects individually. All subjects' interview protocols were ordered as follows:

- listen to first story,
- complete an intervening task,
- recall the first story,
- listen to the second story,
- complete an intervening task, and
- recall the second story.

The entire protocol took approximately 15 minutes to complete. Each child listened to two tape-recorded passages, one depicting a situation that could occur in a traditional school and one depicting a situation that could occur in an open classroom school. The Slessor Sentence Recall subtest and a child survey of home literacy were used as intervening tasks to provide interference between passage presentation and recall. Each of the intervening tasks took two to three minutes to complete. Like the stories, they were counterbalanced for order of presentation. They were also counterbalanced for pairing with passage. Following the intervening task, subjects were instructed to

start at the beginning of the story and tell as much of it as they could remember. They were told, "Do you remember the story you just listened to about [character's name]? Now, I want you to begin at the beginning of the story and tell me everything you remember." They were prompted once with "Anything else?" when they stopped. After recalling both stories, they were given a parent survey of home literacy to take home, to be completed by their parents and returned the following day.

Recalls were tape-recorded and scored by counting the number of complete thought units recalled (Johnston, 1970), plus one point each for including beginning (presentation of "problem") and the ending ("resolution"). An example of one scoring protocol appears in Appendix C. All scoring was completed by one researcher. All recalls were scored twice in randomized order. An intra-rater consistency rating of .927 was achieved.

Results

Two recall scores were obtained for each subject, one for recall of familiar passage and one for the unfamiliar passage. A preliminary T test of the number of thought units recalled indicated that passages with like settings did *not* differ from one another with respect to difficulty of recall. Data were coded and analyzed using the SPSS package and regression subprogram. Mixed between and within subjects analysis of variance was conducted using hierarchical multiple regression techniques (Cohen & Cohen, 1983; Anderson, Mason, & Shirey, 1984). In both the between- and within-subjects analyses, F ratios were calculated off line and were based on the R square increment at the point of entry. For the between-subjects analysis, the dependent measure is the mean recall score for every subject on the two passages. For the within-subjects analysis, the dependent measure is the recall score of each passage. The between-subjects analyses allowed for the examination of the impact of between-subjects factors such as school and frequency of literacy events on the subjects' average recall score (across two passages). The within-subjects analysis permitted the investigation of the effect of within-subjects factors such as familiarity and order of presentation on the variance of each subject's two individual recall scores from the mean recall score. The description of all the variables used in the analyses is presented in Table 2.

[Insert Table 2 about here.]

In a preliminary stepwise regression analysis in which mean recall score was the dependent measure, all possible between-subject independent measures were evaluated. In the final analysis, only the five significant variables were included, which accounted for 84% of the total between-subjects variance. The first variable to enter the regression equation, accounting for the greatest amount of variance in subjects' recall, was subjects' verbal ability as measured by the Slosson sentence repetition task ($R^2 = .4116$). Children who could more accurately repeat longer sentences had higher recalls. The next two variables to enter with approximately 30% of the remaining variance are children's perceptions of the frequency of their use of the library and their perception of the frequency of parent-initiated home literacy events. Children who reported greater use of the library and reported being more involved in a higher number of home literacy events obtained the higher recall scores ($R^2 = .3040$). School differences accounted for an additional 5% of variance, with children in the private school obtaining the higher recall scores. Finally, parents who provided their children with a higher frequency of home literacy activities had children with the higher passage recall scores ($R^2 = .0695$) (see Table 3).

[Insert Table 3 about here.]

In the preliminary within-subjects analysis, a hierarchical multiple regression was conducted. The dependent measure was subjects' recall score on each passage. First, subjects' mean recall score over the two passages was removed to control for individual differences. Then, main effects were entered into the regression equation. These were followed by within-subjects two-way interactions, significant between-subjects main effects and two-way interactions, and all between-by-within subjects interactions. The reduced model included only those factors which explained significant amounts of

variance. Overall, these significant factors account for 88% of the within-subjects variance (see Table 4).

[Insert Table 4 about here.]

In the reduced model within-subjects analyses in which subjects' recall scores on both passages was the dependent measure, subjects' mean recall scores were entered as the first step in the equation. This method of analysis left only the within-subject variance from the mean recall score to be examined. Within-subject factors which could explain this intra-subject variance were then free to be investigated (see Cohen & Cohen, 1983, and Anderson, Mason, & Shirey, 1984). This allowed for a test of passage familiarity in the second step. Familiarity of passage accounted for an additional 6% of the variance, with familiar passages eliciting the higher recall. Order of presentation, though counter-balanced, accounted for a small (1%) but significant additional amount of variance, indicating either a practice or recency effect, since the second passage, regardless of familiarity, received slightly higher recall scores. One significant within-subjects interaction, mean performance by text familiarity, suggests that for subjects with higher overall passage recall, the effect of the unfamiliar passage was not nearly as devastating as it was for subjects with lower recall. A between-subjects factor, children's perception of the frequency of parent-initiated home literacy events was included in the model to allow for the entry of the significant interaction between children's perception of the frequency parent-initiated home literacy events and passage familiarity. The interaction suggests that children's perception of the frequency of home literacy events further diminishes the effect of passage unfamiliarity.

Discussion

The amount and quality of home literacy activity affects the recall of prosodic information among kindergartners. This is supported by the positive correlations between recall and home literacy scales presented in Table 1 and the between- and within-subjects analyses presented in Tables 3 and 4.

In all but two cases, the correlations between ability and frequency of home literacy use are positive and support the hypotheses of the present study. The weak and negative correlations between parents' reports and children's recall, and children's reports of home literacy and parents' reports may well be a function of the survey instrument. The instrument was designed for non-readers who depended on their parents for literacy support. Fully one-third of the children who attended the private open classroom were *not* read to by their parents because the students already read alone. Some of the children explained this during their interview. Some of the parents checked the fact that they read to their child every day while others checked that they did not and then wrote brief explanations regarding the fact that they *used* to read to their children, but have stopped now that their children prefer to read to themselves. The negative correlations associated with frequency of library use and frequency of home literacy experiences as reported by the child and parent may be explained, in part, by the fact that some of the children in the private school checked books out of the extensive "book nook" in their classroom rather than going to the library.

The between-subjects analysis indicates that frequency of library use and home literacy activity, as perceived both by the parent and by the child, are associated positively with recall ability. Children who frequent the library have someone at home who read to them frequently and help them read, and who have books and magazines purchased for them obtain higher passage recall scores. These factors account for a striking 30% (22.8% + 7.5%) of the variance above and beyond that accounted for by verbal ability.

The within-subjects analysis indicates that subjects recall significantly more of the familiar passage than the less familiar passage. Further, children with higher verbal scores are less affected by passage unfamiliarity than are children with lower verbal scores. Also, the frequency of being read to, especially by a parent, reduces the effect of passage unfamiliarity.

The positive effect increased home literacy experiences have on passage recall supports the notion that hearing children's stories, books and magazines, as well as participation in listening activities increases children's ability to process and recall information from written text. It may well be that parent/child interactions which occur when the child is an active participant in the reading process are, in part, responsible for improved performance. However, this phenomenon was not investigated by the present study. It should be examined in future studies.

The significant interaction of mean performance and familiarity indicates that subjects with higher recall scores are not as adversely affected by the presentation of unfamiliar material as are their capable verbal counterparts. This finding raises some interesting questions not examined by this study. Subjects' verbal ability was correlated .62 with total recall, and accounted for .4116% of the variance in the between-subjects model. It may be the case that subjects who are more able to repeat sentences possess more elaborate schemas and so, do not find the "unfamiliar" passage as foreign as their less able peers. They may have been exposed to a greater number of stories and books, so are able to develop schemata for situations which they have not personally experienced. Alternatively, subjects with greater exposure to books and literacy events may handle unfamiliar text more easily because they construct more plausible mental models or make greater use of inferencing strategies to fill in the unfamiliar and missing text information. They are therefore freer to grapple with the unfamiliar content. These hypotheses are both supported by the existing data. A post hoc review of taped recalls revealed that, in several cases, subjects with higher scores on the Slosson and/or higher numbers of home literacy experiences made more inferences and schematically correct embellishments of the text in their verbal recalls of the unfamiliar passage. Two of these subjects also took part in a "schematic translation" of the unfamiliar passages. They supplemented their unfamiliar recalls with familiar equivalents. For example, a child in the open, private school equated the library to his classroom's "book nook," said that "book show and tell" was kind of like "Friday group" in his class, when people told about what they were reading and equated putting things away with "putting his stuff, like, in his cubbie . . .".

The interaction between text familiarity and children's perception of the frequency of parent-initiated home literacy activities is noteworthy. It suggests that, regardless of verbal ability, subjects who reported a high frequency of literacy activities in their homes were better able to cope with unfamiliar content than were their peers who reported a lower frequency of home literacy activity. This finding suggests that increased home literacy experiences make a significant contribution not only to text understanding in general, but also to the understanding of passages that are particularly difficult or unfamiliar.

Implications

While existing verbal ability plays a large role in how well children recall familiar and unfamiliar prosodic information, the potential success of all children, regardless of ability, can be increased by exposure to an increased number of books, via the library and the home literacy environment. We explain the effects in terms of enhanced processing capabilities.

When children encounter a new text about a familiar topic, they access a schema which is appropriate to the content of the text, and the framework thus constructed aids comprehension and recall. When young children encounter a new text about an unfamiliar topic, they cannot adequately represent it with their available schemata unless they have been read many stories at home. Hence, children provided with more exposure to written material will have a broader knowledge of text topics and written language structures so are likely to have a more adequate framework in memory and will sketch together a more complete and more accurate recall. These conclusions are supported by this study's analyses and the post hoc investigations of children's recalls which were discussed earlier.

Research by Markman (1977, 1979) and Paris (1986) suggests that young children often form inadequate or incomplete mental models of text information and are not sufficiently critical, particularly of information that is less familiar to them until or unless they are given the opportunity to act out the events in a story or the steps in a set of directions. Emergent literacy research, however, has uncovered the fact that parents often read the same story again and again (Schickedanz, 1978; Teale, 1982; White, 1954; Teale, 1986), an event which helps children construct mental models of the story (Martinez & Roser, 1985; Mason, 1985; Yaden, 1986). Thus, children who have had story-repetition experiences have begun to construct mental models of texts they hear. This conclusion is supported by the present study's finding that increased home literacy experiences contribute to increased recall of unfamiliar text. This is exemplified by the example of the child who equated unfamiliar objects and situations with more familiar ones.

Finally, being read to may provide a grounding for comprehension, allowing the nonreading child to focus on text meaning. Parents who have been observed reading to their young children are found to encourage them to label pictures, ask questions, and relate text information to their own experiences (DeLoache & DeMendoza, 1986; Harkness & Miller, 1982; Snow & Ninio, 1986; Pellegrini, Brody, & Sigel, 1985; Yaden, 1982). They are leading them to infer and use comprehension monitoring strategies. As children question text information, tie text ideas together, predict, and relate text information to their own experiences they may become better able to recall information and to make inferences with unfamiliar as well as familiar texts.

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Footnotes

¹Children's survey scales and items which comprised each scale are listed below.

Child's perception of frequency of self-initiated home literacy experiences

1. When someone reads to you, do you listen, look at the pictures, or follow along with the words?
2. Do you have a favorite book that you read at home?
3. Do you read by yourself at home?
4. How often do you read by yourself at home?

Child's perception of frequency of parent-initiated home literacy events

1. Does someone read to you at home?
2. How often does someone read to you at home?
3. Who reads to you at home?

Child's perception of the frequency of library use

1. Do you ever go to the public library?
2. How often do you go to the library?
3. When you go to the library, how many books do you check out?

²Parent survey scales and the survey items that comprise them are listed below.

Parents' perception of frequency of child-initiated literacy events

1. How often does your child read alone?
2. When your child reads alone, how long does he/she usually read?
3. What items (toy, book, record, tape, movie) does your child check out of the library?

Parents' perception of the frequency of parent-initiated home literacy events

1. How often do you read to your child?
2. How many books have you purchased for your child during this school year?
3. How many of the magazines (list of popular children's magazines) does your child get regularly?
4. How often does someone in the family help your child read?

Parents' perception of the frequency of library use

1. Which library does your child go to? (school, public, neither, both)
2. How often does your child go to the library?
3. How many books does your child usually check out of the library?

Table 1
Table of Correlations

	1	2	3	4	5	6	7	8	9	10	11
1. Mean recall	--	.89	.93	.62	.25	.48	.53	.41	.21	.24	.71
2. Recall of familiar text	--		.50	.71	.16	.27	.48	.27	.10	.10	.62
3. Recall of unfamiliar text	--			.66	.31	.60	.52	.53	.28	.37	.68
4. Slosson		--		.34	.48	.13	.54	.37	.30	.60	
5. Child's perception of self-initiated home literacy			--		.45	-.09	.09	.05	-.08	.27	
6. Child's perception of parent-initiated home literacy				--		.05	.42	.33	.38	.46	
7. Child's perception of frequency of library use					--		.31	.23	.25	.45	
8. Parents' perception of child-initiated home literacy						--		.60	.77	.62	
9. Parents' perception of parent-initiated home literacy							--	.54	.51		
10. Parents' perception of frequency of library use								--	.35		
11. School									--		

Table 2
Description of Measures

Variable	Meaning of High, Positive Score	Mean	SD	Lowest	Range
Slosson subtest of verbal ability	High verbal ability	22.28	6.38	11	31
School	Open Clsm.	0	.50	-1	1
Sex	Boy	1.53	.72	1	2
Child's perception of frequency of self-initiated literacy events	Greater number of literacy events	6.65	2.02	0	9
Child's perception of frequency of parent-initiated literacy events	Greater number of literacy events	5.62	2.79	0	8
Child's perception of frequency of library use	More exposure to more books	4.81	2.37	0	8
Parents' perception of frequency of child-initiated literacy events	Greater number of literacy events	7.53	3.32	2	13
Parents' perception of frequency of parent-initiated literacy events	Greater number of literacy events	8.81	3.19	3	16
Parents' perception of frequency of library use	Greater exposure to more books	5.72	2.57	1	10
Mean of familiar and unfamiliar recall scores	Better overall recall	10.78	4.66	2.50	20.50

Table 2 (Continued)

Variable	Meaning of High, Positive Score	Mean	SD	Lowest	Highest	Range
Familiarity of the passage	Familiar passage	1.50	.50	1	2	
Order of presentation of passages	Second passage	1.50	.50	1	2	

Table 3**Regression Analysis of Between-Subjects Factor Effects on Subjects' Mean Recall Scores**

Dependent variable: Subjects' mean recall scores

Variable	Multiple R ² (% of Total Variance Explained)	R ² change	F Value
Slosson subtest of verbal ability	.4116	.4116	32.8377
Children's perception of frequency of library use	.6405	.2289	18.2611
Children's perception of the frequency of parent-initiated home literacy events	.7156	.0751	5.9871
School effect	.7653	.0500	4.1796
Parents' perception of the frequency of home literacy events	.8348	.0695	5.5443

F crit = 1, 31; .05 = 4.16

Table 4**Regression Analysis of Within-Subject Factors on Passage Recall**

Dependent variable: Subjects' recall of familiar and unfamiliar passage

Variable	Multiple R ² (% of Total Variance Explained)	R ² change	F Value
Mean recall of passages	.7759	.7759	265.6934
Passage familiarity	.8313	.0554	18.9813
Order of passage presentation	.8484	.0171	5.859
Interaction of mean performance by passage familiarity	.8584	.0100	4.0133
Children's perception of the frequency of parent-initiated home literacy events	.8592	.0008	.0274
Interaction of passage familiarity by children's perception of the frequency of parent- initiated home literacy events	.8843	.0251	8.6020

F crit = 1, 63; .05 = 3.99

APPENDIX A

Children's Questionnaire of Home Reading Activities

1. Does someone read to you at home?
YES NO
2. How often does someone read to you?
DAILY WEEKLY OCCASIONALLY SELDOM NEVER
3. Who reads to you at home?
PARENT SIBLING FRIEND
4. When this person reads to you, do you sit back and listen, or do you look at the pictures, or do you follow along with the words?
LISTEN LOOK AT PICTURES FOLLOW ALONG
5. Do you have a favorite book that you read at home?
YES NO
6. Do you read by yourself at home?
YES NO
7. How often do you read by yourself at home?
DAILY WEEKLY OCCASIONALLY SELDOM NEVER
8. Where do you get your books?
PARENTS BUY ALREADY AT HOME LIBRARY
9. Do you ever go to the public library?
YES NO
10. How often do you go to the library?
DAILY WEEKLY MONTHLY SELDOM
11. When you go to the library, how many books do you check out?
0 1-2 3-4 5-6 7+
12. Do you ever play school?
YES NO
13. When you play school, who do you play with?
OLDER FRIENDS/SIBLINGS YOUNGER FRIENDS/SIBLINGS BOTH
14. Are the older children you play with helping you to read?
YES NO
15. Are you helping anyone younger to learn to read?
YES NO

APPENDIX B

Parent Survey of Home Literacy

1. I read to my child: Daily Weekly Occasionally Seldom Never

2. How many books have you purchased for your child during this school year?

0 1 - 5 6 - 10 11 - 15 16+

3. Check all of the magazines below that your child reads/looks at regularly.

Ranger Rick Child Life Electric Company Magazine
 Sciencland Cricket Highlights for Children
 3-2-1 CONTACT Jack and Jill
 Ebony Junior! Sesame Street

4. My child reads alone: Daily Weekly Occasionally Seldom Never

5. When my child reads alone, she/he usually reads:

5 - 15 min. 16 - 25 min. 26 - 30 min. longer

6. Someone in the family helps my child read:

Daily Weekly Occasionally Seldom Never

7. If someone helps your child read, what kind of help do they usually give?

Identifies words Tells sounds of letters
 Helps with sounding out words Listens to child read
 Tells letter names

8. My child goes to: A school library A public library Both Neither

9. My child goes to a library: Daily Weekly Monthly Seldom

10. How many books does your child usually check out from the library?

0 1 - 2 3 - 4 5 - 6 7+

11. My child usually checks out: Storybooks Magazines

Information books Poetry Toys Records Tapes

APPENDIX C

The following is a transcribed verbatim recall of one subject. One thought unit is presented per line.

The subject received one point per thought unit and an additional point for including a beginning (presentation of problem). This subject did not recall the ending (resolution) and hence, did not receive an additional point for that aspect of recall.

- It start that Jay came to school (and)
- He forgot his, um, his library book.
- Everybody had to bring one (cause)
- They were gonna get to show and tell a book.
- His teacher, she counted the, counted the lunch people (and)
- He didn't have the money. (no point for this, it is not in the story)
- She made her, she made Jay, the boy, ya know? She made him do more work.

(PROMPT) "Anything else?"

- He was sad, I think.

Total Points: 7 for complete thought units recalled plus 1 point for including a sense of beginning (statement of the "problem").